All that glitters is not gold:
A critically-constructive analysis of positive organizational behavior[1]

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ABSTRACT

Positive Organizational Behavior (POB) is taking its *momentum* in management studies, but it is far from its fullest potential as it is not yet developing integrative comprehensive explanatory models of organizational behavior. This article discusses the biased character of POB revealed in its focus on the positive outcomes of positive psychological capabilities and lack of consideration for the negative side of positive capabilities. We argue that this results from a confirmatory bias also featured in mainstream psychology towards the negative outputs of negative psychological states. We discuss counterintuitive empirical evidence that positive psychological capabilities can produce either positive or negative outputs the same way negative psychological states do. On that basis, we propose three new avenues for further advancement of POB: exploring nonlinear frameworks, focusing on contextual relations, and adopting counterintuitive research techniques.

Key words: Positive organizational behavior; confirmatory bias; negative outputs; nonlinear approach; contextual relations; counterintuitive research.

"All that glitters is not gold;
Often have you heard that told"

(Shakespeare, The Merchant of Venice, Act II, Scene VII)

When Shakespeare's prince of Morocco asked for Portia's hand in marriage, he had to perform her father's ingenious test: to choose between one of three chests and hit upon the one in which her portrait was. One chest was golden, the other was silver and the other one was made of lead. He tried to riddle out the symbolism and wrongly chose the golden one, which did not contained Portia's picture but a paper with the words quoted above. It is most probable that Shakespeare wanted to make evident that sometimes things are not what they look like superficially at first, something we will try to do in the following pages.

In recent years, an academic movement emerged towards the study of positive phenomena in peoples' life (Peterson, 2004; Seligman and Csikszentmihalyi, 2000). Their proponents openly criticized mainstream psychologists' bias towards negative aspects of human functioning and the forgetting of its mission of making peoples' life happier and more productive and fulfilling (Seligman, 1998). The movement quickly extended to the study of positive human behaviour in organizations (Cameron, Duton, & Quinn, 2003; Luthans, 2002a, Vera & Rodriguez-Lopez, 2004) stressing the major role positive institutions can have in promoting positive behavior (Peterson & Seligman, 2003; Seligman, 2003).

Organizational behaviour's adoption of positive psychology's emphasis is not without its criticism. It can be argued that, contrary to psychology, in organizational studies "only recently have textbooks included harmful outcomes and organizational pathologies that adversely affect the public" (Vaughan, 1999, p.272). However, one must recognize the role positive organization studies are playing in bringing new concepts and frameworks into organizational behaviour research and practice, while covering the gap non-theoretical non-scholarly self-help books have been exploring for years (Luthans, 2002a).

Luthans (2002b) first defined POB as "the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today's workplace." (p.59). These positive psychological capabilities are defined as positive developmental

capacities like confidence (self-efficacy), hope, optimism, happiness and emotional intelligence, that promote positive personal growth and development along with a better organizational performance (Luthans & Youssef, 2004; Wright, 2003; Luthans, 2002a, 2002b). In fact, many other psychological constructs could be added given that they still within the limits of this definition. By defining a positive psychological capability in these terms, POB authors implicitly assume that positive psychological capabilities will generally bring positive outcomes or, as Shakespeare would put it, that "All that glitters is gold".

In this article, we discuss evidence that psychological capabilities advocated by POB as positive can instead cause negative impacts, while the so-called negative psychological states can result in positive outcomes both for individuals and organizations. We do not intend to make a comprehensive review of the field nor to be exhaustive in our illustrations. Our point is simply that, if we are to study and apply positive psychological capabilities to improve performance, it seems important to understand all their possible effects, both the positive and the negative. Because our major goal is thus to point guidelines for theoretical development, we also rely on research outside POB in addition to that explicitly advocating a POB approach. Specifically, we include concepts not explicitly accounted as positive psychological capabilities but linked to positive management approaches. Although this may somewhat reduce the objectivity of our critique, it strongly contributes to the specification of our guidelines for further POB development.

As such, the article first discusses empirical evidence of a bias in POB current perspective, but our main goal is to offer viable routes to further improve the field. Although a critical review of the Positive Organizational Scholarship (POS) movement has already been done (e.g. Judge & Ilies, 2004; Fineman, 2006), these critiques have not explicitly addressed the POB approach. Nor have the criticisms resulted in concrete strategies on how to improve this field of study. Given the early stage of development of POB and its strong and growing impact on the frameworks of both practitioners and academics, we propose some strategies to enable the development of more comprehensive and explicative theory concerning positive psychological processes in organizations. In this sense, our analysis focus on the confirmatory bias of current POB models as an opportunity to strengthen the field and widen up its scope and is in accordance with Luthans' (2002a) call to enhance theory development in POB research.

In our way down on this reflection, we too can have felt short on attaining an unbiased critique. This should, however, be seen as a needed step to accomplish our primary goal of providing useful guidelines for improving POB.

The rest of the article is organized as follows: we start by presenting the rationale for our analysis, arguing that both mainstream organizational behaviour (MOB) and POB have been prone to the well known scientific bias of confirmation. Next, we present counter-intuitive evidence, showing that positive and negative psychological capabilities can have either negative or positive effects on individual and organizational performance. We then propose three strategies to further develop the POB field, namely, exploring nonlinear frameworks, focusing on contextual relations, and adopting counter-intuitive research techniques.

POB AND THE CASE FOR A CONFIRMATORY BIAS

In the beginning, the growing movement towards the study of positive phenomena was meant to be a response against the unbalanced research over-focus on remediation and problem-repairing (Seligman, 2003; Peterson & Seligman, 2003; Luthans, 2002a; Wright, 2003). Mainstream approaches in psychology and organizational behavior were thus biased in the direction of the concepts considered, the methodologies proposed and the core objectives strived for.

Given the development in the reflexive field of scientific philosophy and epistemology (McGuire, 1973; Popper, 1959), one should not be surprised with such a theoretical bias. The authors mentioned above have claimed that, as humans, scientists are subject to a series of biases as they pursue their scientific work. A major bias is the confirmatory bias, the tendency to emphasize experiences that support data consistent with preliminary hypothesis and ignore or discount those that are inconsistent (Greenwald, Pratkanis, Leippe, & Baumgardner, 1986). Confirmatory bias in science is at the core of publication bias, materializing in the fact that statistical rejections of the null hypothesys are achieved more frequently in published than in unpublished studies (Sigelman, 1999).

Some researchers have proposed that confirmatory bias is probably the result of an illusory correlation, in which scientists fall down while conducting research. This illusory correlation which corresponds to an overestimation of the frequency of natural

association correlations, has been treated as resulting from the more general availability heuristic, the tendency to judge frequencies and probabilities based on the ease of retrieval of some situations from memory (Kahneman & Tversky, 1973).

Empirical evidence of confirmatory bias in science was attained in the classic study of Mahoney (1977). Reviewers in the study were asked to referee manuscripts describing identical experimental procedures but reporting positive, negative or mixed results. In their judgements, reviewers were strongly biased against manuscripts reporting results contrary to their own theoretical perspective. They also noted more an overlooked typographical error when the results were incongruent with their own perspective (71.4%) than when results were congruent (25%).

Several explanations to this phenomenon have been advanced, other than those based in psychological processes (McCoun, 1998). Sociological and political factors such as institutional forces, professional incentives and social networks, have proved to be valuable in explaining confirmatory bias in science. In fact, confirmatory bias may be even higher in science than supposed, because scientists have usually staked their career on its success (Gorman, 1996).

Though representing the rule, confirmatory biases are problematic to science. If the logic of science is to search for refutability and falsification (Popper, 1972), a negative contra-theoretical result would yield more information than a positive one. This is at the core of our argument that both mainstream organizational behaviour and POB should not focus only on confirmatory research findings (Figure 1, cells a and d), but also to explore and communicate counter-intuitive results (Figure 2, cells b and c). We are not saying that this is a particular problem of POB. However, because POB is partly rooted in a critique to such a bias in mainstream psychology, POB researchers should be specially aware of this phenomena. Also, central authors of the positive management movement might refer to the need to find a balanced approach to organizational studies (e.g. Snyder & Lopez, 2003; Peterson & Seligman, 2003), but as said elsewhere this has been more of a rhetoric discourse than of an actual practice (Held, 2004).

Insert Figure 1 about here

Studies approaching the negative consequences of the so-called positive psychological capabilities such as optimism or self-esteem are in a clear disadvantage in psychology and are almost inexistent in organizational behaviour. The same has been referred regarding emotional intelligence (Zapf & Holz, 2006). We are not saying they are non-existent (e.g. Vancouver, Thompson, Tischmer, & Putka, 2002) but rather that they are clearly underrepresented. In the same vein, not much is known about how presumed negative psychological states such as depressive mood or pessimism sometimes positively impacts performance and even health. We next review the few empirical studies that tried to understand these relations.

The Negative Outcomes of Positive Psychological Capabilities

The study of relations between positive psychological capabilities and negative outcomes have been conducted mainly in psychological science. Some authors have overtly questioned the linear relation between positive states and performance and health outcomes (Crocker & Park, 2004; Judge and Ilies, 2004). In fact, we can find in the literature examples of negative outcomes as consequences of positive psychological capabilities (Figure 2).

Insert Figure 2 about here

Self-esteem is a good example. High self-esteem people are more self-confident and tend to show enhanced initiative after an initial failure (McFarlin & Blascovich, 1981). However, some research indicates that high self-esteem does not necessarily correlate with high academic achievement, nor with high job performance, nor even does it relate to effective leadership (Crocker & Park, 2004). In fact, a high self-esteem is sometimes at the base of negative outcomes. Research has shown that when people deliberately strive for self-esteem, they end up focusing on themselves and not on the others, hindering personal relationships (Brown, 1986). Sometimes they adopt a behaviour of a narcissistic type. Some studies also found evidence that these individuals have higher depression symptoms and tend to be more anxious (Dyckman, 1998). In part, this is so because their self-centeredness makes others see them as exploitive and manipulative (Judge & Ilies, 2004).

These negative outcomes may result directly from a high self-esteem. But they can also result from indirect individual actions. Buehler, Griffin, and Ross (1994), have found that high self-esteem people underestimate the time that is necessary to completely achieve a specific task or project. This can undermine much of a person's work organization, induce high levels of anxiety and stress, and lower performance. In the same way, high self-esteem individuals can promote organizational conflict and perceptions of injustice. Evidence exists that high self-esteem people evaluate themselves in a self-serving way. Even when their performance is actually the same, they evaluate it more positively than low self-esteem people (Taylor, 1986), which could end in a perceptual misfit between actual behaviour and performance assessment ratings.

Faced with these evidence, POB researchers might argue that self-esteem is only a proxy of a positive psychological capability, given the trait-like character it is sometimes assumed for self-esteem. However, this argument contradicts the evidence on the arbitrariness of the trait and state distinction (Allen & Potkay, 1981). It is also in contradiction with the measurement options of POB researchers, which have assessed optimism with trait-type measurement scales (e.g. Luthans, Avolio, Walumba, & Li, 2005). But evidence from the potentially negative impact of positive psychological capabilities is also available for fundamental core concepts of POB. Research has found that optimism, considered by Fred Luthans as the heart of POB (Luthans, 2002b), can sometimes produce negative consequences. These studies have mainly focused on the effects of unrealistic optimism on performance. As for high self-esteem, unrealistic optimism can harm individuals and organizations as unrealistic optimists are prone to define unrealistically ambitious tasks for the available time (Taylor, 1986). This may undermine individual and organizational performance.

Armor and Taylor (1998) have reviewed research on optimism and reported that unrealistic optimism may provoke negative consequences by leading people to disappointment, by promoting inappropriate persistence and by leading to personal endangerment. In their words,

> "On the one hand, evidence suggests that there are benefits to being optimistic, with favourable expectations facilitating the attainment of favourable outcomes; but there is also evidence that people's specific predictions tend to be unrealistically optimistic, which if acted upon

> unchecked would seem to render people vulnerable to a variety of negative outcomes ranging from disappointment to endangerment." (pp.309-310)

Moreover, Armor and Taylor (1998) contrasted dispositional optimism with optimism in people's specific expectations and found that, unlike dispositional optimism, state-like optimism is responsible for both positive and negative consequences.

Even emotional intelligence, another of POB's central capabilities (Luthans, 2002b), has its downside. Research has shown that emotional labour necessary to manage emotions comes many times at costs with higher stress levels, burnout and job dissatisfaction (Judge & Ilies, 2004). Discussing the controversy over whether emotional labour has positive or negative consequences for individuals, Diefendorff and Gosserand (2003) argued that it depends. In their view, emotional labour has negative effects when individuals display emotions that are discrepant with their personal goal hierarchy. In these cases, individuals may experience dissatisfaction or even burnout if the situation persists over time. Emotional labour skills, which can be seen as resulting from high levels of emotional intelligence, are not without its costs for employees in terms of their mental and physical stress (Schaubroeck & Jones, 2000). As Zeidner, Matthews, and Roberts (2004) have recently demonstrated, the assumption of a relationship between emotional intelligence and positive outcomes is generally based on literature relying in expert opinion, anecdote, case studies, and unpublished proprietary surveys, which might explain why research has not expressed all the potential outcomes (including the negative ones) of such a psychological capability.

But evidence from the negative effects of positive phenomena goes further. Contrary to POB's current assumption that positive psychological states correlate positively with performance outcomes, Sutton and Rafaeli (1988) found evidence of a negative relationship. In a field study conducted in retail stores, they found that higher levels of positive emotions displayed by employees were associated with lower levels of store sales, a finding which is quite counterintuitive. The qualitative study they devised to try to understand this unpredictable result demonstrated it was due to store pace and line length. In stores with higher pace and busy times, clerks were less likely to display positive emotions to customers and to feel in a less positive mood. Even not considering a causal direction, this shows that productivity (positive outcome) is sometimes associated with the consequence of negative psychological effects (negative mood), and

as such, positive psychological capabilities and positive performance outcomes do not necessarily correlate positively.

Creativity is another example of the negative effects that positive psychological capabilities may carry for individuals in organizations. Performing innovative activities usually has negative costs for those who do them. As creative employees are likely to face resistance and conflict from others in the organization, taking innovative initiatives can cause frustration, antagonism and animosity, leading to less positive feelings and relationships with colleagues and supervisors (Janssen, Van de Vliert & West, 2004). Furthermore, creativity may lead to frustration given the unfocused effort and diminished productivity that creative individuals may experience (Ford & Sullivan, 2004).

We have until now discussed how positive positive psychological capabilities may negatively impact individual performance, but how much are these impacts directly extensive to organizational outcomes? May optimism or high self-esteem cause damage in the world of business? Some research points to an affirmative answer.

A study on risk investments of financial analysts found that males in financial investment have a significant higher variability than females in terms of job performance (Felton, Gibson, and Sanbonmatsu, 2003). A detailed analysis showed that this was due to the lower performance of high dispositional optimistic males, who demonstrated a great propensity for risk. This probably happens because optimists will continue to pursue the same goals in face of negative information given their generalized belief that good things will happen in the future (Carver & Scheier, 1982). In some situations, pessimism may thus be beneficial, as pessimists disengage when faced with negative information. Their ability not to rely on the sunk cost heuristic may lead, in some cases, to better outcomes.

A similar process has been evidenced in the work on strategic persistence and escalating commitment (Audia, Locke, & Smith, 2000; Staw, 1981; Staw and Ross, 1987). Research has evidenced that high self-efficacy and satisfaction with past performance may have a paradoxical effect, often leading to negative outcomes. This tendency for firms to stick with strategies that have worked in the past possibly results in many cases from the incapacity of managers to respond to environmental signals that indicate the need for strategic change. A laboratory study conducted by Audia et al. (2000) showed that dysfunctional persistence is due to the higher level of self-efficacy and higher goals

that accompany past success, showing that self-efficacy may have (at least in excess) a negative role in job performance.

In another laboratory study, with business students responding to dilemmas in which funds have been committed to a failing course of action, Whyte, Saks, and Hook (1997) found a moderately strong relationship between self-efficacy and intention to escalate. They concluded that, in escalation situations, perceived self-efficacy for goal attainment may increase motivation to escalate commitment to a failure venture. A similar finding was reported by Knight and Nadel (1986) who concluded that when a course of action was failing, high self-esteem individuals sought less information and remained committed to their initial course of action.

Globally, this line of research has demonstrated that the mutual reinforcement of higher performance and higher self-efficacy creates an upward spiral, stimulating individuals to expect easy results (Lindsley, Brass, and Thomas, 1995). These expectations may make them less prone to adapt in a changing environment. This constitutes a clear example of a negative result coming from high self-efficacy, the POB concept with the most backup (Luthans, 2002a).

Evidence from non-intuitive effects of positive processes also come from group-level studies. Trust between team members has dominated in organizational behaviour as a best practice positive phenomenon. However, as Langfred (2004) has shown, too much trust between team members may be detrimental for team performance in self-managed teams characterized by high levels of individual autonomy. In this study, MBA student teams with high trust performed worse than lower trust teams in a case study presentation. This probably happens because the more team members trust one another, the less they choose to monitor each other, which may undermine opportunities to avoid errors and improve performance. In some situations, thus, high team member trust may be negative to group performance. This is in line with Janis' (1972) conclusions that cohesive groups may suppress dissent, censor information, create illusions of invulnerability, and stereotype opponents, all organizational phenomena than can cause negative outcomes. Although trust is not a positive psychological capability, these kind of research demonstrates that negative outcomes can become the consequence of supposedly positive relationships and behaviours and should thus make us aware of the possibility of such counterintuitive relationships.

The Positive Outcomes of Negative Psychological Capabilities

Thus far, we have presented empirical evidence showing that positive psychological capabilities can sometimes produce negative personal and organizational outcomes. We now present some research stressing the fact that negative psychological capabilities can, at least sometimes, enhance positive outcomes (Figure 3). However, these studies are even more scanty than the first. This could be interpreted at first sight as a higher reluctance of researchers to accept the virtues of negative psychological capabilities even more than the undesired effects of positive psychological capabilities.

Insert Figure 3 about here

Alloy and Abramson (1979) found that mildly depressed students estimated more realistically the contingencies between their actions and a desired outcome than non-depressed students, who tended to overestimate their level of control. This reveals that depressive moods are not necessarily negative and may indeed improve performance awareness in certain situations.

Depressive realists have also been found to avoid overestimating the favourability of impressions they convey to others (Lewinsohn, Mischel, Chaplin, & Barton, 1980), and thus they are more sincere and authentic in interpersonal relationships. Authenticity has been studied as a desirable phenomena in organization studies and in POB, particularly in the context of authentic leadership (Luthans & Avolio, 2003).

So-called negative capabilities have also direct positive effects on individual and organizational performance. People in a sad mood systematically use more detailed information processing (Forgas & Bower, 1987) and analytical reasoning and cognitive activity (Bless, Bohner, Schwarz, & Strack, 1990; Mackie & Worth, 1987). This may be a fundamental advantage in performing tasks requiring detailed, systematic information processing (Ambady & Gray, 2002). In fact, this is an important asset in much of the tasks which characterize work in the new knowledge economy given the high levels of information one must deal with. Hence, Alloy and Abramson's (1979) maxim that these people may be "sadder but wiser".

Evidence from the positive effects of negative states which are closer (as an opposite) to POB, like pessimism, is also emerging. First, as Norem (2003) states, in many cases defensive pessimists and strategic optimists perform equally well in terms of objective performance outcomes. Compared with anxious individuals who do not use defensive pessimism, defensive pessimists show significant increases in self-esteem and satisfaction over time, perform better academically, form more supportive friendship networks, and make more progress on personal goals. This clarifies the positive power of pessimism (Norem & Chang, 2002). Second, defensive pessimism may be, in part, a cultural product, which provides a rationale for its positive effects on outcomes (Held, 2004). In some cultures, being a defensive pessimist may simply be of more social value than being an optimist, which translates in esteem advantages for defensive pessimists in those cultures. At best, we must admit that there are both benefits and costs to defensive pessimists.

In addition, negative psychological states, such as being in a sad mood, lower the propensity to follow cognitive heuristic processing and, as such, reduces possible consequential mistakes and errors (Tversky & Kahneman, 1974). Following basic processing rules may generally mean being more adapted, but sometimes it conducts people to large financial and business losses (Bazerman, 1997). Negative moods elicit greater cognitive appraisal, higher levels of scrutiny of situational features and improved attention to relevant information (Schaller & Cialdini, 1990). These facets may be beneficial in many work environments. If ones job relies heavily on negotiation (e.g. attorneys) or high cognitive attention requirements (e.g., air traffic controllers), for example, a sad mood may positively contribute to the job as it enhances the likelihood of using systematic information processing and the spending of more attention to the quality of arguments (Worth & Mackie, 1987).

In organizational processes such as conflict management or negotiation, for example, an individual in a negative mood may perform better as he/she is likely to process strong rational arguments more than a person in a good mood (Bless et al., 1988). In fact, happy individuals are prone to temporarily lack the cognitive capacity necessary for deliberate reasoning (Isen, 1987; Isen & Daubman, 1984), which may bound their performance in such situations.

There is also evidence that negative moods can produce positive outcomes in terms of interpersonal relationships. For example, being in a negative mood can serve to increase

helping behaviour (Carlson & Miller, 1987). Helping behaviours have been highly regarded in organizational behaviour studies under the cluster of organizational citizenship behaviour (Konovsky & Organ, 1996; Organ & Ryan, 1995; Organ & Near, 1983).

ADVANCING THE POB FIELD

Given the evidence discussed above, POB practitioners should try to understand all the possible consequences that positive capabilities such as optimism, self-esteem and self-efficacy can have on performance outcomes. It also calls researchers the need to explore the relations and contingencies between those capabilities and their outcomes. Otherwise we risk to develop capabilities whose impacts may contribute to negative results in organizations.

Based on major developments of scientific epistemology, we next propose three strategies that may allow POB researchers to overcome confirmatory bias and further advance our understanding of positive psychological capabilities' impact on performance outcomes. These are: nonlinear frameworks of analysis, contextual approaches and counter-intuitive techniques. These strategies need not to be seen as mutually excluding but can instead be adopted synergistically to improve our knowledge of POB.

Nonlinear Frameworks

"The true laws can not be linear nor can they be derived from such."
Albert Einstein

Some have argued that adopting a "more is always better" thinking in the study of positivity would be a big mistake (Schuldberg, 2003). In fact, we tend to assume that by monotonically increasing application of something good, we will make it better and better, despite our vowing to moderation.

However, given the evidence reported above, one must necessarily conclude that "bad things are not always bad, and good things are not always good". As Weiss and Cropanzano (1996) have put it "certainly, predicting simple linear associations between affective states (positive or negative) and performance (positive or negative) seems

overly simple" (p.55). This means we need to rule out linear frameworks of POB analysis and begin exploring nonlinear relations between positive organizational capabilities, and performances outcomes and health.

An insightful change would be to adopt a curvilinear view of relations between positive capabilities and performance outcomes. An inverted U-shape view of the relationships between organizational variables and performance is not new and can be found in some studies in organizational behaviour. The relationship between stress and performance, for example, has been depicted for some authors as curvilinear/inverted U (Perrewe, Fernandez, & Morton, 1993). This means that the presence of stress may not necessarily impair performance but that some level of stress can instead improve performance outcomes.

Others in the field of organizational behaviour have provided similar evidence. While testing Peter Warr's vitamin model through a structural equation modelling procedure, De Jonge and Schaufeli (1998) found a nonlinear U-shape relation between three job characteristics – job demands, job autonomy and workforce social support – and employees' well being measures of job satisfaction, anxiety and emotional exhaustion. In their study, the fit of the nonlinear model was superior to that of the linear model. This means job autonomy and social support do not always drive goodness but can instead promote negative outcomes like job-related anxiety.

In a similar way, in order to gain more knowledge in the field, POB research should examine if positive psychological capabilities like optimism and self-efficacy's impact on organizational outcomes is best described as an inverted U-shaped one. It is possible that up to a certain level, optimism may relate positively to performance outcomes (e.g., deadline accomplishment), but start to relate negatively for levels of optimism beyond (i.e., higher than) the optimal point. Perhaps a high self-esteem level may positively impact organizational outcomes such as citizenship behaviour but, after an optimal point, start to contribute to a reduction in the frequency of those behaviours. For what we know, these hypothesis remain to be tested.

Beyond U-shaped relationships, other non-linear kind of relationships have recently been explored. In fact, some of the studies approaching non-linear models are being developed within a positive framework. For example, Losada and Heaphy (2004) found different types of non-linear dynamics in teams with different levels of performance. They propose that these non-linear dynamics is tied to the ratio of positivity to

negativity in team interactions. Based on this work, Frederickson and Losada (2005) have empirically found that human flourishing seems to follow a similar pattern when considering a threshold level of the positivity to negativity affect ratio.

Our suggestion here is that concepts tightly associated to POB such as optimism, hope and self-efficacy should start equating and testing similar types of non-linear relationships, such as threshold relationships and other kinds of non-linear relationships. Because constructs like optimism and pessimism might differ from affect in that, unlike positive and negative affect, optimism and pessimism possibly constitute differing dimensions and not opposing poles of a same dimension (Peterson & Chang, 2002), different types of non-linear relationships might explain how these constructs interact with one another.

The search for non-linear relationships opens a large space for POB researchers to explore how positive psychological capabilities impact individual and organizational outcomes. Besides providing researchers with more precise models to predict positive human behaviour, the study of non-linear relationships offers a new mindset with which POB can better expand knowledge of positivity and of the relationships between the positive and the negative.

Contextual Approaches

"I am I and my circumstances."
Ortega y Gasset

It is possible that the efficacy or appropriateness of a positive psychological capability is more a qualitative issue than a matter of degree (as suggested by the nonlinear framework strategy). There may be some contexts where high self-esteem is effective, like after an initial failure, and some other situations where high levels of optimism would bring about positive results (McFarlin & Blascovich, 2004; Luthans, 2002b). Still, there are probably other situations where they would promote negative results. This raises the question of whether POB should adopt a contextual approach.

The crucial role of context has been discussed by organizational behaviour authors (Rousseau & Fried, 2001). A contextual approach is supported with empirical research demonstrating that positive psychological capabilities may have effects contingent on

the task at hand. The effects of happiness on performance, for example, may depend on the type of task (Ambady & Gray, 2002). Whereas a positive mood seems to increase performance on creative tasks, it may impair performance on tasks requiring more detailed and systematic information processing (Hirt, Melton, McDonald, & Harackiewicz, 1996). This is due to the fact that positive and negative affective states lead to different levels of scrutiny of relevant information (Schaller & Cialdini, 1990). Studies in the domain of persuasion have demonstrated that people in more positive moods are less likely to engage in effortful systematic information processing than people in a more negative mood (Weiss & Cropanzano, 1996). Whether positive capabilities elicit a positive or a negative outcome may thus depend on situation-specific characteristics.

Another example comes from the field of creative team working. Research evidenced that the beneficial effects of a novel contribution depend on the team's project stage in its life-cycle. Consistent with a contextual approach, creativity is beneficial early in the development of a project team, when its primary goals are to learn, search for information and articulate tentative solutions, but after a midpoint transition, when the team's goal is to accomplish a deadline, additional attempts to introduce novel ideas disrupt performance and may make team members feel frustrated (Ford & Sullivan, 2004). Like creativity, other positive psychological capabilities such as optimism, hope or confidence, may play different roles in the different phases of a project team life-cycle.

Scientists under the umbrella of the psychology of science have explored this issue. Greenwald et al. (1986) discussed two result-centred research strategies to overcome confirmatory bias and fully explore a study field: condition seeking and design approach. Condition seeking refers to the identification of the conditions under which some hypothetical relation may be confirmed. It asks researchers to deliberately reduce the generalizability of their findings by searching, from the many conditions where the relations were found, those that are necessary and those that are sufficient. This means, in our case, that POB research should seek to understand, for example, under which conditions do high levels of optimism produce positive results and under what circumstances can high self-efficacy be beneficial.

In contrast, the design approach strategy argues that one should not search for the conditions in which a relation is likely to occur, but instead try to specify the conditions

that can produce a currently unobtainable result. According to the design approach strategy, POB should seek to understand in what conditions do high levels of optimism drive negative results. In the same vein, POB should search for situations where low self-esteem is advantageous.

Globally, POB will potentially make great improvements by adopting a contextual perspective, such as the one proposed by McGuire (1973, 1983). In McGuire's view of scientific development, researchers sooner or later end up finding a way to confirm their hypotheses, by understanding the situations where confirmation will occur. This perspective, entails a plastic view of the world where social science's role is not to find any truth nor refute any hypothesis, but instead to understand the context in which the relation between variables is likely to occur.

The praise for the importance of context was also raised by Johns (2001). He stated that the fact that context-free research is seen as more scientific and prestigious than context-specific research is due to the role that organizational researchers define for themselves. As he says,

> "Organizational behaviour researchers generally see themselves as being in the business of studying relationships among variables, and they tend to be uncomfortable with constants, if they consider them at all." (pp. 33)

However, a deep understanding of the causes and effects of positive psychological capabilities in organizational settings needs to consider the contexts where relationships between variables occur. Otherwise, researchers will be continually biased towards confirmatory results and unable to get insight about why unpredictable results appear.

Counterintuitive Techniques

"What if the earth is not the center of the Universe?"
Copernicus

Another strategy to overcome confirmation bias would be to deliberately apply some counterintuitive techniques. Engaging in a counterintuitive strategy like counterfactual thinking can act as an effective debiasing tool (Tetlock & Belkin, 1996). This is so because counterfactual reasoning directs us to search the space that includes instances

inconsistent with our current hypothesis (Farris & Revlin, 1989) and, as such, helps to develop and test more comprehensive and balanced propositions. But what do we mean by counterfactual thinking in this context? How can it be used to develop helpful techniques for overcoming confirmation bias in science?

Counterfactual thinking is simply thinking contrary to the facts, or asking "what might have been if...?" (Roese, 1997; Roese & Olson, 1995). By directing us to "what if..." type-questions, like the one raised by Copernicus centuries ago, counterfactual reasoning can serve as a tool to enhance our knowledge of the impact of positive psychological capabilities and further advance POB studies.

As such, it would help us search for answers to questions such as "what if high self-efficacy employees can negatively impact organizational outcomes?", or "what if pessimists can be beneficial for organizational functioning?". Not assuming linear relationships between these counterintuitive implications (what would be worse!), the scope and impact of POB research could dramatically increase by answering these kind of questions.

This is a different epistemological stance than that of continuing testing confirmatory hypothesis and developing counterfactual research only when negative evidence is found (Olson, Roese, & Deibert, 1996). We propose the need to use counterfactual research as a tool to widen POB field by a process of deliberately engaging in counterfactual reasoning. This resembles the mental simulation heuristic proposed by Kahneman and Tversky (1982), a form of elaborative thinking emphasizing the unfolding of a sequence of events from an imaginative starting point or condition (e.g., high cognitive attention task) to a certain outcome (e.g., depressive mood).

In this respect, counterfactual thinking is in line with the contextual approach proposed above, as counterfactual thoughts focus attention on a factor – condition or event – that is temporally antecedent of the observed outcome (Morris & Moore, 2000). However, counterfactual thinking does not resume itself to this perspective. Recently, McGill (2000; see also McGill & Klein, 1993) proposed two types of counterfactual reasoning: outcome contrasts and antecedent contrasts.

Outcome contrasts compares instances in which the event occurred (e.g., high emotional intelligence leading to higher sales), with instances in which it did not (e.g., high emotional intelligence not leading to higher sales). In these cases, counterintuitive

techniques allow us to "undo the event" in order to understand why the event sometimes happens and sometimes it does not.

Antecedent contrasts considers instances (real or imagined) in which the candidate factor to explain the outcome is absent and ask whether the event would have occurred anyway (e.g., would high positive mood have lead to higher performance if the task was not creative?). This means that the antecedent contrast technique focuses on undoing the explanatory candidate factor and checking if the outcomes still happen. Tetlock and Belkin (1996) referred to these procedures as *sideshadowing*.

The use of counterintuitive techniques like those presented are but an example of how new knowledge can be generated within the field of POB, not only by extending its scope, but mainly by assuring it becomes a comprehensive and integrative scientific field.

CONCLUSION

The purpose of this article was to discuss the positive organizational approach from a critically constructive perspective. Understandably, POB authors have, up to now, been active in exploring the virtuous consequences of a positive approach to work. We suspect, however, that even in the case of POB, there can be too much of a good thing. As such, we set out to explore some possible detrimental effects of positive organizational behavior. Our theoretical exploration led to a pair of major points.

First, we suggested the possible existence of a confirmatory bias in the current mainstream POB vision. This bias may result in a simplification of POB in the sense that it would ignore both the positive consequences of negative capabilities and the negative consequences of positive capabilities. Second, we advanced three possibilities for circumventing the confirmatory bias. The first possibility we suggest is the need to contextualize research, in order to better understand when do positive effects emerge, and what contexts harm their blossoming. Another possibility consists in the use of nonlinear frameworks. Because "good things are not always good and bad things are not always bad", and because "there can be too much of a good thing", scholars may address POB topics in a counterintuitive form, our third possibility. They can ask, for example, what are the risks of trust in work teams. Or the negative consequences of hope. Or the positive results of pessimism. Additionally, it will be worth studying

whether the combination of positive and negative capabilities may produce more "tempered" organizations than purely positive or negative ones. We have also emphasized the need to carefully consider context. As we have discussed, what is positive in a given moment, may become negative in another one. As such, and given the sensitivity of positive organizing to "small events", namely personal interactions, it may be difficult to understand the flourishing of positive organizations without taking a detailed look at interactions and the contexts where they happen. Recent evidence on the importance of the "organizational mundane" stresses the need to consider the way mundane events create or destroy positive organizational climates (Alvesson & Sveningsson, 2003, Buckingham, 2005). Additionally, the adoption of a meso-approach (House et al., 1995; Klein et al., 1994) will help to understand how organizational contexts facilitate positive interactions or erect barriers against them.

In summary, we suggested that positive organizational behavior scholars may want to critically reflect on their overly positive approach to organizational phenomena. We see much promise in the positive turn but consider that all that glitters may not be gold. With this article we hope to have contributed to a tempered optimistic approach to positive organizational behavior.

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Figure 1

Relations between psychological capabilities and outcomes.

		Outcome: Positive	Outcome: Negative
Psychological Capability: Positive		POB a	False positive b
Psychological Capability: Negative		False negative c	Mainstream OB d

Figure 2

The negative outcomes of positive psychological capabilities.

Negative Outcomes of Positive Psychological Capabilities	Lower achievement, no better job performance, or effective leadership. (Crocker & Park, 2004; Ford & Sullivan, 2004; Felton, Gibson, & Sanbonmatsu, 2003; Sutton & Rafaeli, 1988; Buehler, Griffin, & Ross, 1994) Hindered personal relationships. (Brown, 1986) Depression symptoms and anxiety. (Dyckman, 1998) Self-centeredness, exploitive and manipulative personal image. (Judge & Ilies, 2004) Disappointment, inappropriate persistence and personal endangerment. (Taylor, 1986; Armor and Taylor, 1998; Taylor, 1986) Higher stress levels, burnout and job dissatisfaction. (Judge & Ilies, 2004; Diefendorff & Grosserand, 2003; Schaubroeck & Jones, 2000; Buehler, Griffin, & Ross, 1994) Frustration, antagonism, animosity, and less positive feelings and relationships with colleagues and supervisors. (Janssen, Van de Vliert & West, 2004) Negative strategic persistence and escalating commitment. (Audia, Locke, & Smith, 2000; Whyte, Saks, & Hook, 1997; Knight & Nadel, 1986; Staw & Ross, 1987; Staw, 1981) More errors and lower team performance in self-managed teams. (Langfred, 2004) Reduced cognitive capacity for deliberate reasoning. (Isen, 1987; Isen & Daubman, 1984)

Figure 3

The positive outcomes of negative psychological capabilities.

Positive Outcomes of Negative Psychological Capabilities	More realistic contingency judgements - "sadder but wiser". (Alloy and Abramson, 1979) More sincere and authentic interpersonal relationships. (Lewinsohn, Mischel, Chaplin, & Barton, 1980) Detailed information processing and analytical reasoning and cognitive activity. (Bless, Bohner, Schwarz, & Strack, 1990; Forgas & Bower, 1987; Mackie & Worth, 1987; Ambady & Gray, 2002) Increases in self-esteem and satisfaction, more supportive friendship networks, and more progress on personal goals. (Norem, 2003; Norem & Chang, 2002) Higher social value of negative psychological capabilities in some cultures. (Held, 2004) Lower cognitive mistakes and errors. (Tversky & Kahneman, 1974; Bazerman, 1997; Schaller & Cialdini, 1990) Higher helping and organizational citizenship behaviour. (Konovsky & Organ, 1996; Organ & Ryan, 1995; Carlson & Miller, 1987; Organ & Near, 1983)